



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Shows Why Algebra is a Necessary Study

LYMAN AND DARNELL'S ELEMENTARY ALGEBRA

Provides problems which apply algebra to every day matters—agriculture, commerce, engineering, etc. There is a careful correlation with arithmetic showing the superiority of algebra in solving certain kinds of problems.

Simplicity is the keynote of this book. Graphical representation is introduced in two chapters, but is so arranged that it may be omitted at the option of the teacher, without interrupting the sequence of the work.

AMERICAN BOOK COMPANY

New York

Cincinnati

Chicago

Boston

Atlanta

Wells and Hart's Algebra

Thirteen states adopt algebras for exclusive use in High Schools. Wells and Hart is the official book in eight of these states. No other algebra has more than one state adoption. The Wells and Hart Algebra has more state adoptions than all the other algebras combined.

Wells and Hart's Geometry

Among the features of this Geometry which have received unqualified praise are the following: (1) Its beginning with easy and practical matters; (2) the device by which a minimum course of exceptional clearness and utility is provided without detracting from the successful use of the book in meeting the exacting demands now made upon secondary school mathematics.

Wells and Hart's New High School Arithmetic

In addition to a brief and thorough review of the fundamental topics, the authors give prominence to industrial and commercial applications, such as automobile insurance, income and inheritance taxes, codes for marking goods, and scores of other modern ideas.

D. C. HEATH & CO., Publishers

Boston

New York

Chicago

Atlanta

San Francisco

London

CONTENTS

Retrospect and Prospect for Mathematics in America. Presidential Address. By Professor H. E. SLAUGHT	443
The Graphical Solution of Spherical Triangles. By Professor H. C. BRADLEY	452
QUESTIONS AND DISCUSSIONS: Questions—Replies to question 34 by Professors A. A. BENNETT and W. A. HURWITZ; Discussions—"Geometrical Proofs of the Law of Tangents" by Professor W. V. LOVITT; "Note on the Law of the Mean" by Professor H. H. DOWNING	460
RECENT PUBLICATION: Reviews—By Professors F. CAJORI, E. J. MOULTON, etc.; Notes; Articles in Current Periodicals	469
UNDERGRADUATE MATHEMATICS CLUBS	478
PROBLEMS AND SOLUTIONS: Problems—2862–2868; Solutions of Problems— 2790	482
NOTES AND NEWS	483
INDEX TO THIS MONTHLY, 1920	485

EDITORIAL CORRESPONDENCE AND BOOKS FOR REVIEW should be addressed to the
EDITOR-IN-CHIEF, R. C. ARCHIBALD, Brown University, Providence, R. I.

BUSINESS CORRESPONDENCE should be addressed to the SECRETARY-TREASURER of the Association,
W. D. CAIRNS Oberlin, Ohio.

Fifth Summer Meeting of the Association, Chicago, September 6, 1920;

Fifth Annual Meeting, Chicago, December 28–29, 1920

The following are dates of Section meetings of the Association in 1920, unless otherwise specified:

ILLINOIS, Univ. of Chicago, December 29

IOWA, Univ. of Iowa, Iowa City, May 1; West
High School Bldg., Des Moines, Nov. 5

KANSAS, State Agricultural College, Man-
hattan, April 3; Topeka, January 22, 1921

KENTUCKY, Centre College, Danville, April 17

MARYLAND—DISTRICT OF COLUMBIA—VIRGINIA,
Goucher College, Baltimore, Md., May 15;
Naval Academy, Annapolis, Md., Dec-
ember 11

MINNESOTA, St. Catherine's College, St. Paul,
June 5

MISSOURI, Kansas City Junior College, No-
vember 13; Univ. of Missouri, November
25–26, 1921

OHIO, Ohio State Univ., Columbus, April 2

ROCKY MOUNTAIN, Colorado College, Colo-
rado Springs, April 2

Volumes and Sets of the Monthly

Complete sets of the Monthly (1894–1920) are obtainable only occasionally through dealers in periodicals, but many single numbers and complete volumes (1894–1912) may be had through the Secretary at varying prices, according to scarcity of stock.

Volumes for 1913, 1914 and 1915 will be sold, when available, *only to members of the Association who can thereby make up complete sets*—price, \$5.00.

Most of the volumes for 1916–1920 can be obtained through the Secretary at \$4.00, but scarcity of a few issues here also will raise the price of certain volumes to \$4.50 or \$5.00.

Address all communications to the Secretary,

W. D. CAIRNS

Oberlin, Ohio

Since it is impossible to raise the dues above a certain maximum without going beyond the reach of very many of those to whom the Association means most, it seems clear that an endowment fund is the best solution of the difficulty. Now that the Association is incorporated it is legally qualified to administer such a fund.

It is believed that, when these conditions are widely known among the friends of mathematics, financial support of this kind will be forthcoming.

-----Fund, and to be used ²

Witness: _____ Signature: _____

² Indicate which one of the two purposes is desired, and omit the other.

THE NEW ERA PRINTING COMPANY

LANCASTER, PA.

Is prepared to execute in first-class and satisfactory manner all kinds of printing and electrotyping. Particular attention given to the work of Schools, Colleges Universities, and Public Institutions.

Books, Periodicals

Technical and Scientific Publications

Monographs, Theses, Catalogues

Announcements, Reports, etc.

All Kinds of Commercial Work

(Printers of the Bulletin and Transactions of the American Mathematical Society, etc., etc.)

Publishers will find our product ranking with the best in workmanship and material, at satisfactory prices. Our imprint may be found on a number of high-class Technical and Scientific Books and Periodicals. Correspondence solicited. Estimates furnished.

THE NEW ERA PRINTING COMPANY